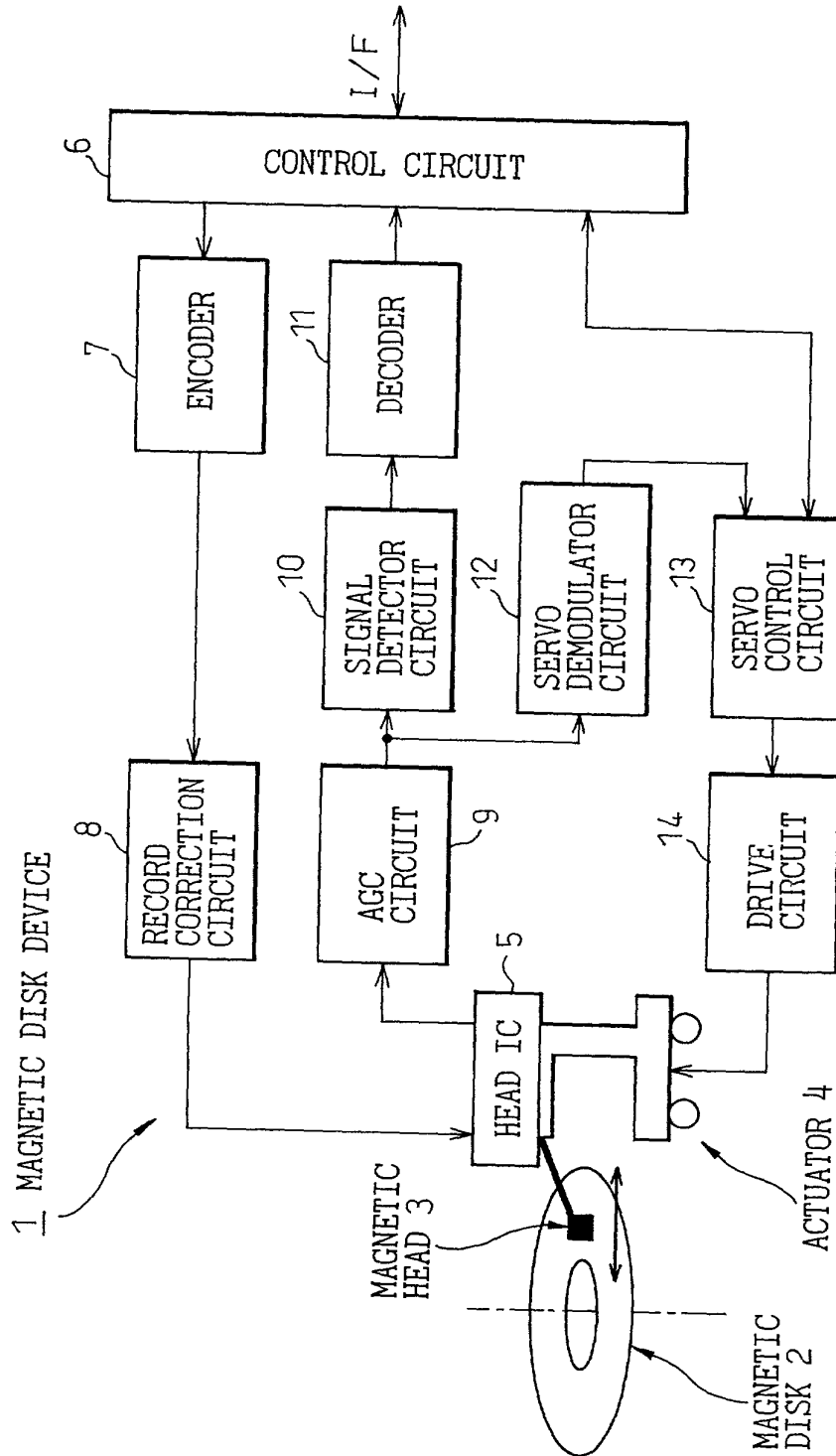


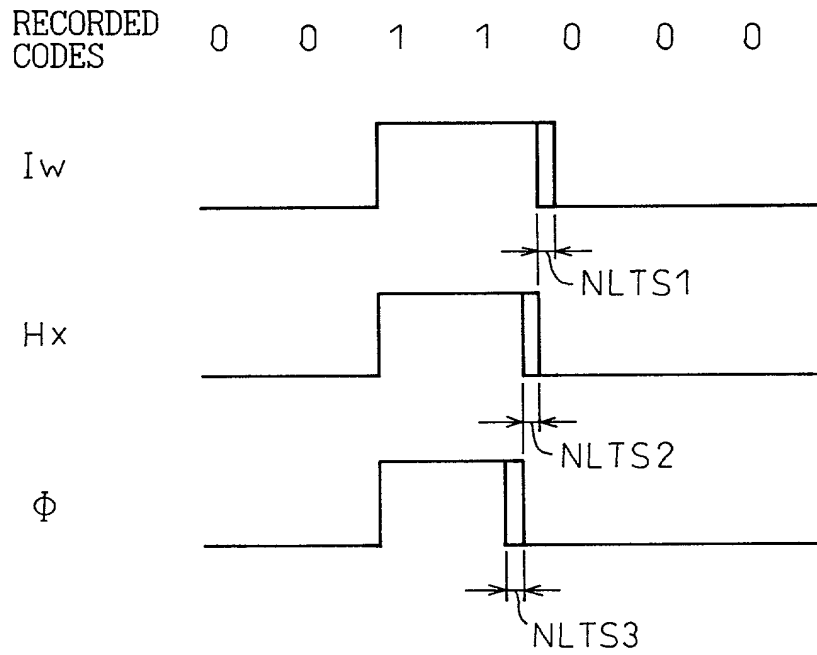
1/18

Fig.1



2/18

Fig.2



TOOET "EE6/660

3/18

Fig.3

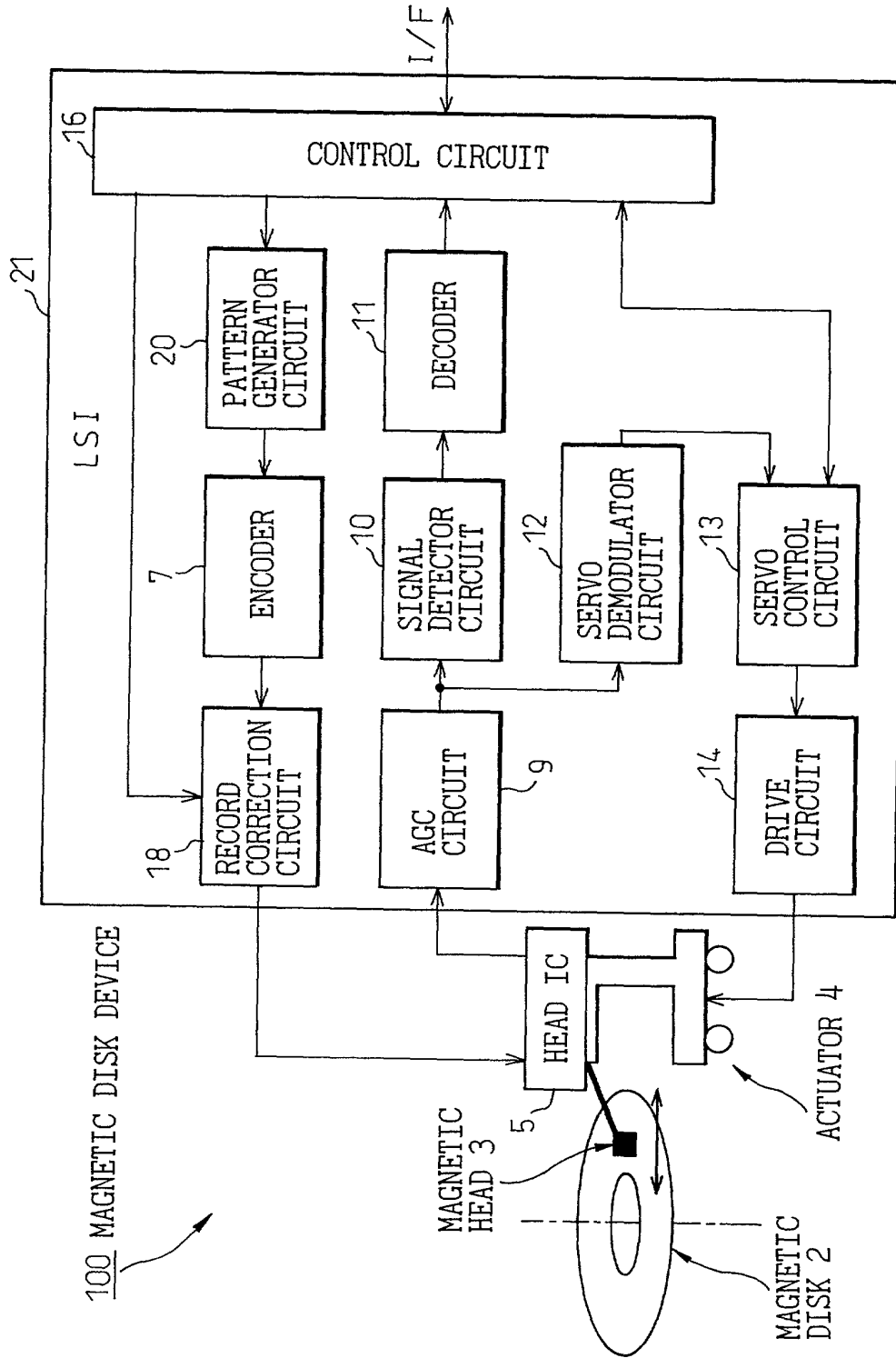
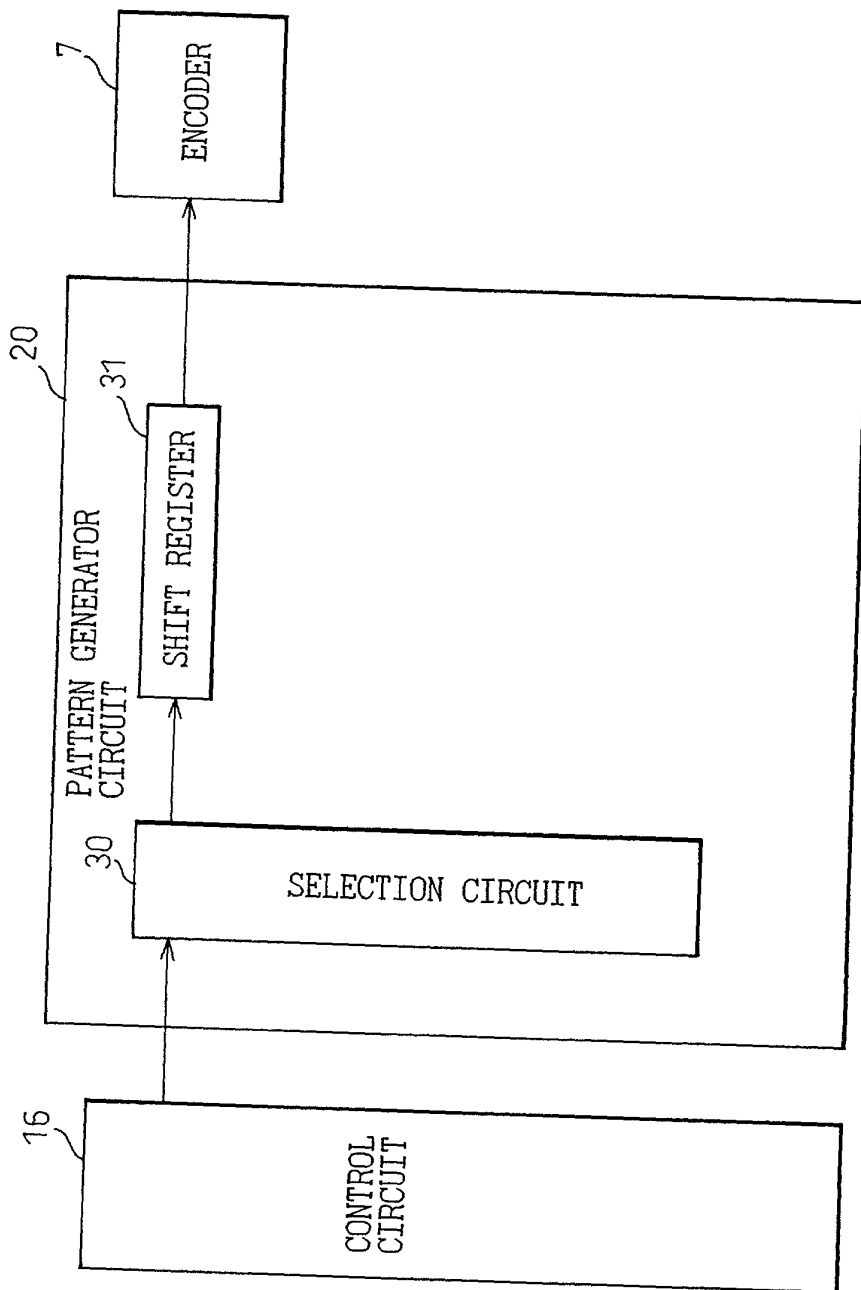
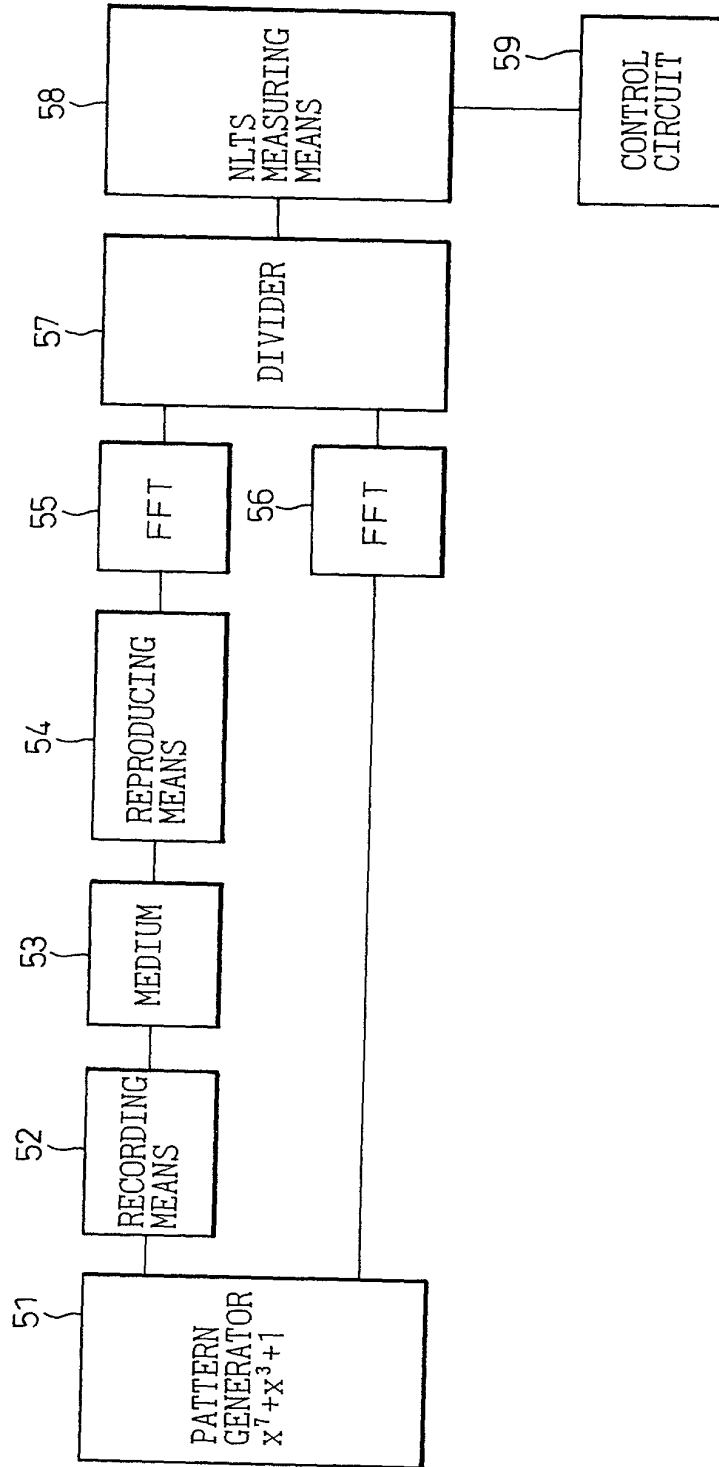


Fig.4



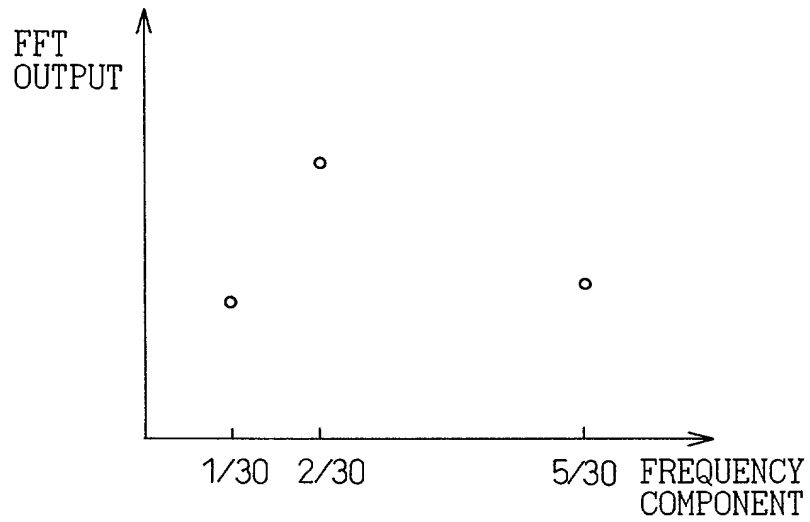
5/18

Fig.5



6/18

Fig.6



2803.66013-6

7/18

Fig.7A

KIND OF NLTS MEASUREMENT		RECORDING PATTERN A (NRZI NOTATION)																													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
TO-BE- MEASURED PATTERNS	DIBIT (ORIGINAL)	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0
	TRIBIT (BIPOLAR)	1	1	1	0	0	0	1	1	0	1	0	0	1	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0
	2T (BIPOLAR)	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0
	HTS (O/WNLTS)	1	0	1	0	1	0	1	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0
REFERENCE PATTERN	REF (COMMON)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

*1

8/18

Fig.7B

*1

NLTS	ABSOLUTE ERROR BY ASYM
AVERAGE BIPOLAR NLTS VALUE OF DIBIT	-5%
AVERAGE BIPOLAR NLTS VALUE OF TRIBIT	+5%
AVERAGE BIPOLAR NLTS VALUE OF 2T PATTERN	-5%
UNIPOLAR NLTS	LESS THAN 5%

9/18

Fig.8A

*2

KIND OF NLTS MEASUREMENT	V5pat	V5ref
DIBIT (ORIGINAL)	$[1+\exp(-j * \text{PI}/3 * \text{ow})] * [1+\exp(-j * \text{PI}/3 * 2) - \exp(-j * \text{PI}/3 * (1-\text{nltts}))]$	$[1+\exp(-j * \text{PI}/3 * \text{ow})]$
TRIBIT (BIPOLAR)	$[1+\exp(-j * \text{PI}/3 * \text{ow})] * [1+\exp(-j * \text{PI}/3 * (2-\text{nltts}))]$	
2T (BIPOLAR)	$[1+\exp(-j * \text{PI}/3 * \text{ow})] * [1+\exp(-j * \text{PI}/3 * 2) - \exp(-j * \text{PI}/3 * (2-\text{nltts}))]$	
HTS (O/WNLTS)	$[1-\exp(-j * \text{PI}/3 * \text{ow})] * \exp(-j * \text{PI}/3)$	

10/18

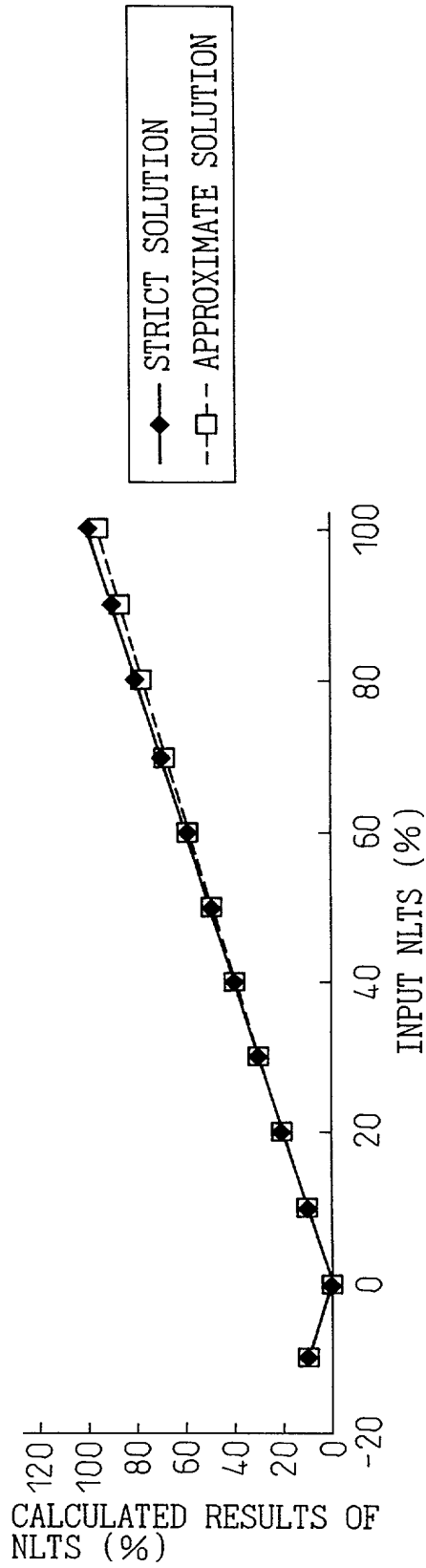
Fig.8B

*2

(V5pat/V5ref)=Vab	FORMULAS FOR NLTS CALCULATION	
	STRICT SOLUTION	APPROXIMATE SOLUTION
$ 1+\exp(-j * \text{PI}/3 * \text{nltts}) $	$\text{acos}[(2-\text{Vab}^2)/2] * 3/\text{PI}$	$\text{Vab} * 3/\text{PI}$
$ 1+\exp[-j * \text{PI}/3 * (2-\text{nltts})] $	$2-\text{acos}[(\text{Vab}^2-2)/2] * 3/\text{PI}$	-
$ 1-\exp[-j * \text{PI}/3 * (1-\text{nltts})] $	$1-\text{acos}[(2-\text{Vab}^2)/2] * 3/\text{PI}$	$1-\text{Vab} * 3/\text{PI}$
$ 1-\exp(-j * \text{PI}/3 * \text{ow}) / 1+\exp(-j * \text{PI}/3 * \text{ow}) $	$\text{acos}[(1-\text{Vab}^2)/(1+\text{Vab}^2)] * 3/\text{PI}$	$\text{Vab} * 6/\text{PI}$

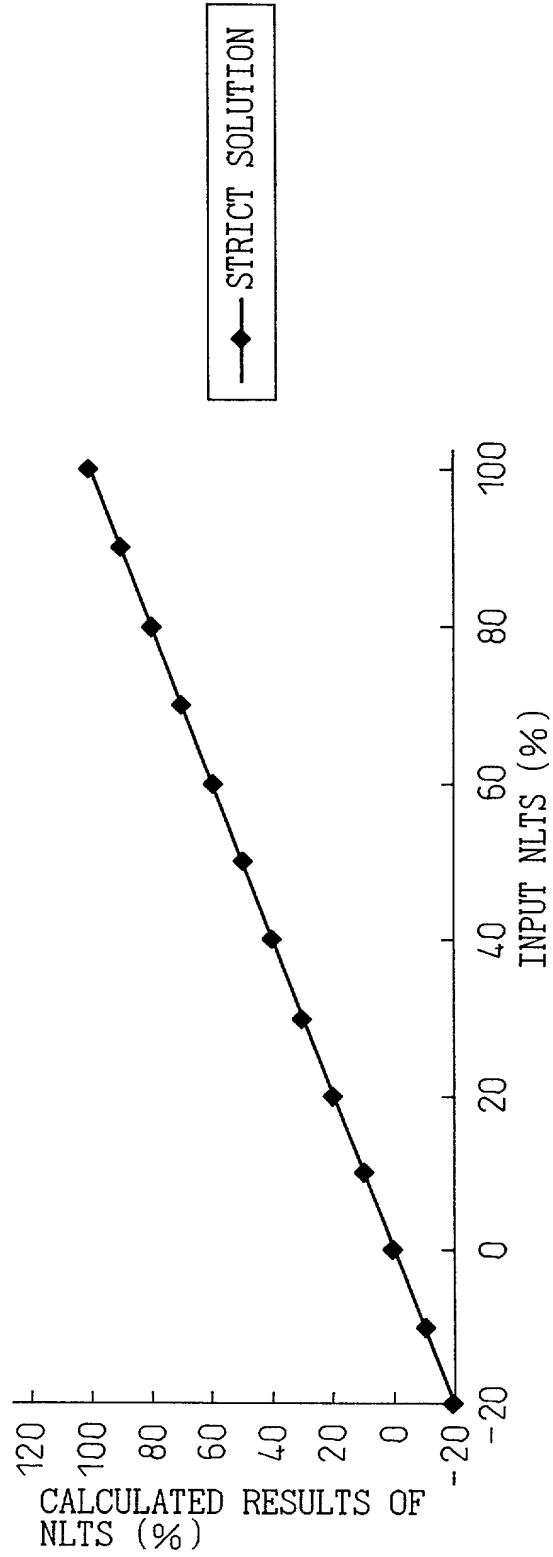
11/18

Fig.9



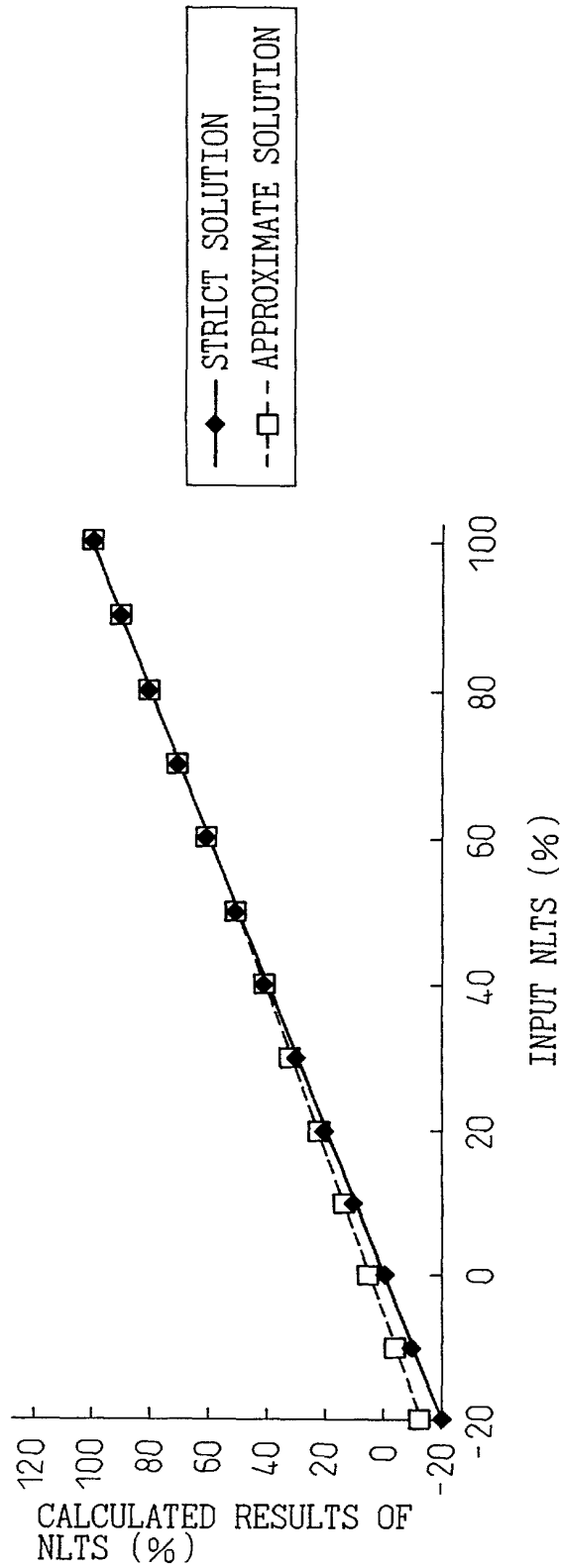
12/18

Fig.10



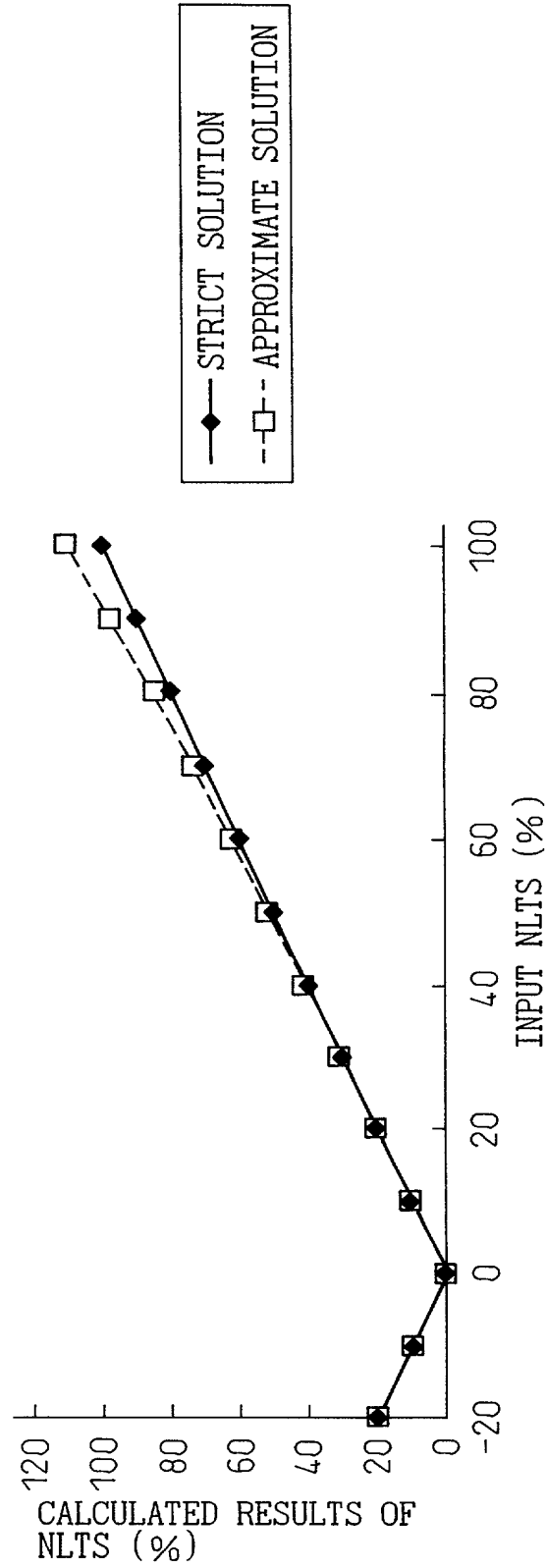
13/18

Fig.11



14/18

Fig.12



15/18

Fig.13A

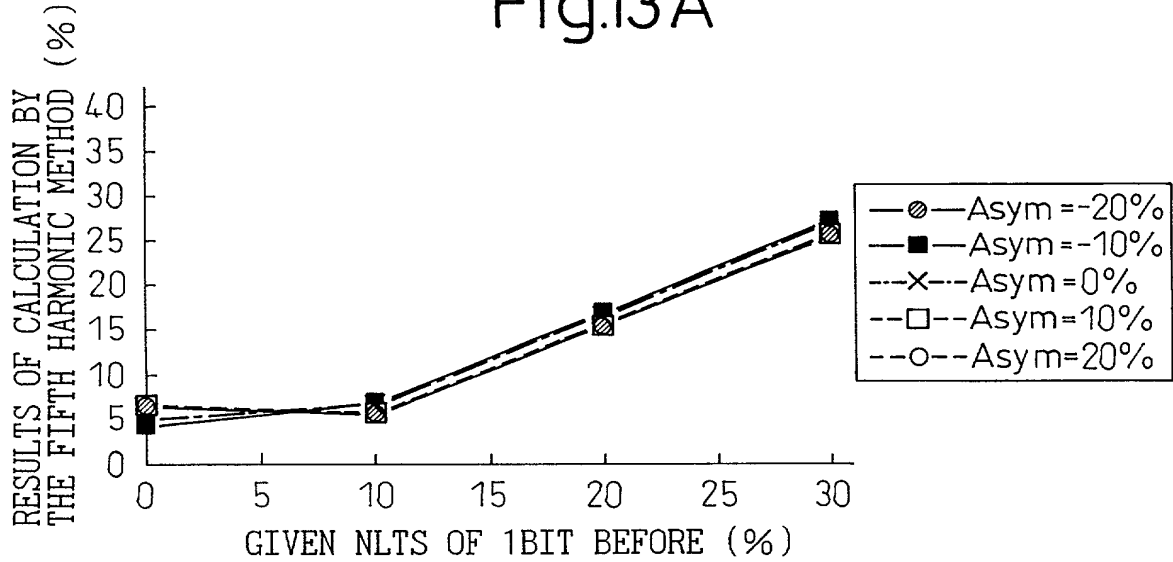
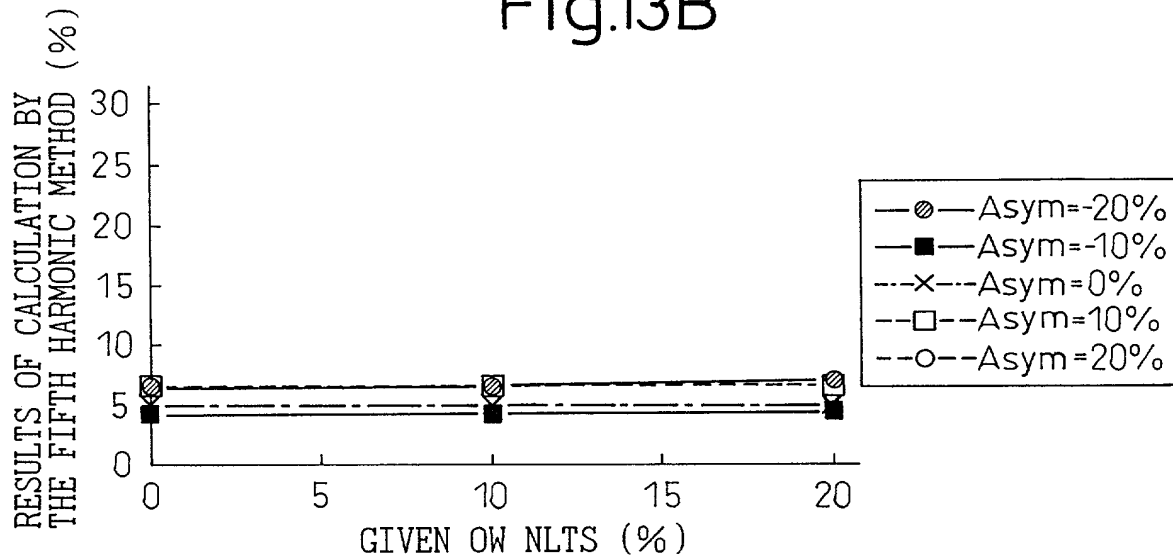


Fig.13B



17/18

Fig.15A

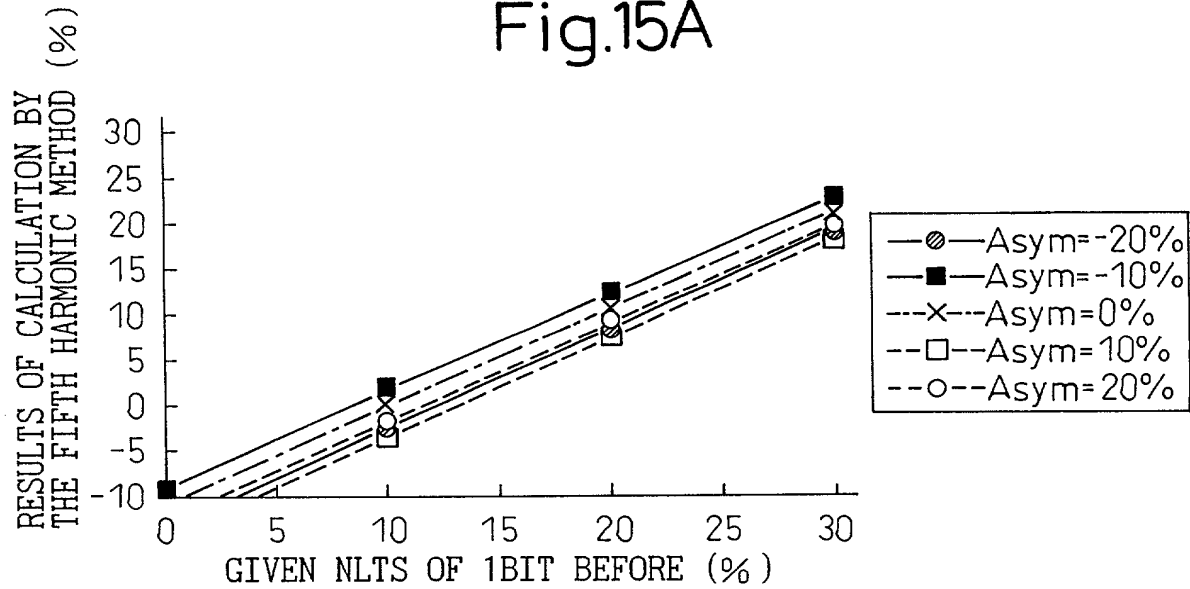
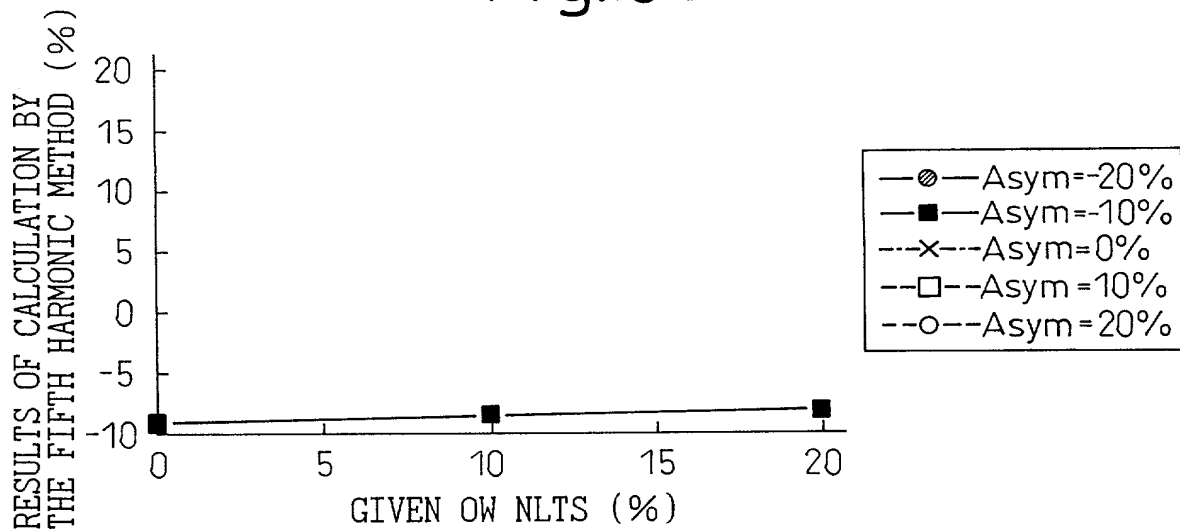


Fig.15B



18/18

Fig.16A

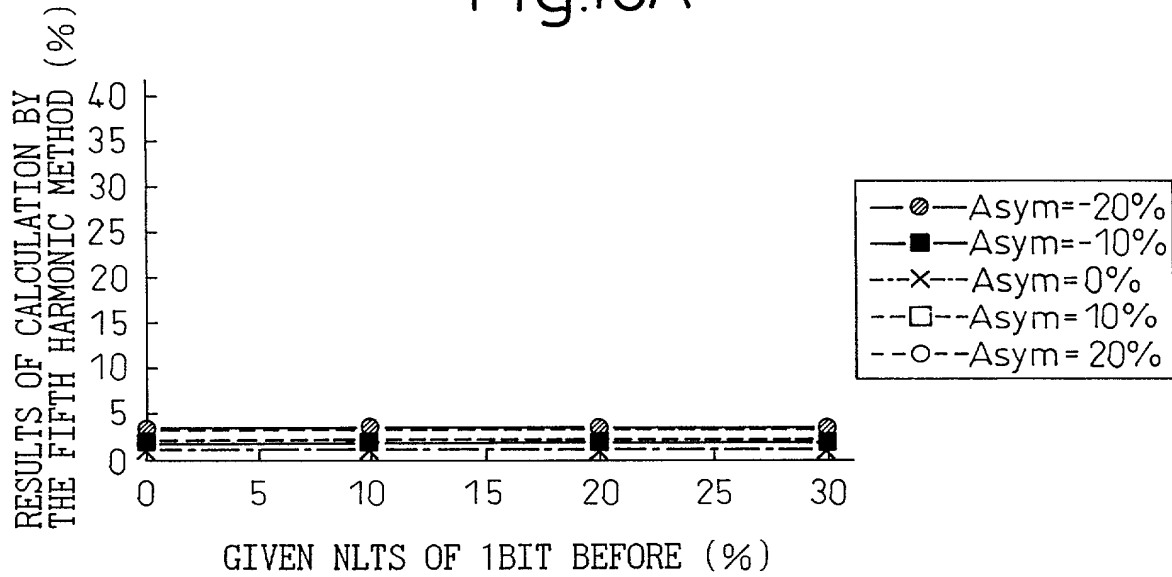


Fig.16B

